

REMARKS

Claims 1, 5-10, 12-14, 16, 18-21, 24, 25, 27-29, 31-34 and 36-43 are pending, of which claims 1 and 10 are independent method claims and claims 40 and 42 are independent computer program product claims generally corresponding to independent method claims 1 and 10. As indicated above, independent claims 1 and 40 have been amended by this paper.

With respect to the Specification, the Office Action objected to the disclosure based on a reference number that is not found in the corresponding drawing. As shown above, Applicants have amended the specification to correct several typographical errors, including correction of the improper reference number identified in the Office Action.

With respect to the claims, the Office Action provisionally rejected all pending claims under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,578,069 to Hopmann et al. Although Applicants believe the provisional non-statutory double patenting rejection is in error, Applicants have filed a terminal disclaimer with this response to obviate the rejection.

The Office Action further rejected all pending claims¹ under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,806,074 to Souder et al. ("*Souder*") in view of U.S. Patent No. 5,924,096 to Draper et al. ("*Draper*").²

Applicants' invention, as claimed in independent method claim 1 for example, relates to resolving a resource conflict so that a client copy of the resource can be updated to the one or more servers without overwriting any changes made to the resource by another client. The method determines that a conflict exists between the server copy of the resource and the client copy of the resource if a server resource tag that is representative of the server copy of the resource does not match a client resource tag that is representative of the client copy of the resource. The server determines whether it can resolve the conflict between the server copy of the resource and the client copy of the resource into a single version of the resource, and if the

¹Due to the similarities between independent method claim 1 and independent computer program product claim 40, Applicants presume that the Office Action intended to reject claim 40 for reasons similar to those stated for claim 1, even though the Office Action fails to address claim 40 in any way. If claim 40 should have been rejected for different reasons, Applicants respectfully request that those reasons be identified so that Applicants have an opportunity to respond appropriately.

²Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to do so in the future. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status or asserted teachings of the cited art.

server cannot resolve the conflict, the server creates a conflict resource containing information about the conflict between the server copy and the client copy of the resource. If the conflict was not resolved at the server, the client evaluates whether the conflict resource can be resolved into a single version of the resource in accordance with additional information, known to the client but not the server, regarding a client operation that created the conflict. If the conflict resource cannot be resolved by the client, the conflict resource is presented to a user.

Applicants invention, as claimed in independent method claim 10 for example, also relates to detecting and resolving a conflict between a client copy of a resource and a server copy of the resource so that the client can upload the client copy of the resource to the server without overwriting any changes made to the server copy of the resource by another client. The server receives a client resource tag from the client that identifies a client version of the client copy of the resource. The server determines whether the client resource tag matches a server resource tag that identifies the server version of the server copy of the resource, and determines that a conflict exists if the client resource tag does not match the server resource tag. The method executes a server level of conflict resolution between the client copy of the resource and the server copy of the resource in order to resolve the server copy and client copy of the resource into a single version of the resource.

As Applicants note in the Specification beginning at line 4 of page 4:

Conflicts between a client copy of a resource and a server copy of a resource can occur because multiple copies of a particular resource can reside on multiple servers and multiple clients. A simple example of this conflict is where two clients have downloaded a resource from a server. The first client deletes a portion of the resource and uploads the altered resource to the server. The second client adds a different portion to the resource, but does not delete the portion deleted by the first client. The second client then uploads the changed resource to the server. In this scenario, the portion deleted by the first client is in effect restored because the version of the first client was overwritten by the changes made by the second client.

Note that conflicts of this sort are not resolved by simply identifying the most recently changed version of the resource. In fact, the most recently changed version of the resource in this example was the cause of the conflict.

Souder discloses a conflict resolution apparatus that comprises: 1) a conflict detection module for detecting a conflicting modification to corresponding portions of first and second data structures, 2) a plurality of conflict resolution methods, one or more of which being

configurably associated with corresponding portions of the first and second data structures, and
3) a conflict resolution module for activating a first conflict resolution method when the conflict detection module detects the conflicting modification to the corresponding portions of the first and second data structures. Abstract; col. 5, ll. 1-16. *Souder* detects a conflict using the modification information itself, that is, comparing old and new values from one site with old and current values from another site. Col. 8, ll. 24-37; Figures 3 & 6. If none of the assigned conflict resolution routines can resolve a particular conflict, an error is raised. Col. 10, ll. 15-20; col. 20, ll. 36-61; Figures 5 & 20. The Office Action fails to cite any disclosure in *Souder* that teaches or suggests the use of resource tags.

Draper discloses methods and systems for synchronizing local copies of a distributed database. Abstract. *Draper* uses tags (including timestamps, version numbers, sequence numbers, update reference numbers, and transaction counters) to determine the relative order of two operations on a database replica. Col. 2, ll. 35-39; col. 5, ll. 19-36 & 57-65; col. 6, ll. 22-29. Tags are updated whenever a database operation is performed on a corresponding data item. Col. 2, ll. 59-63; col. 6, ll. 31-36. *Draper's* tags may be used to determine which copy of a data item is more recent so that the most recent data can be propagated during synchronization. Col. 5, ll. 19-28. A tag index can be used to create a list of recent events, which can then be sent to a master node to obtain the information needed to update a local cache of database objects or records. Col. 3, ll. 1-4. The tag index also can be used in dynamically creating a virtual update log containing complete data items for replacing corresponding data items at a target location during a synchronization operation. Col. 11, ll. 44-50. The Office Action fails to cite any disclosure in *Draper* that teaches or suggests detecting a resource conflict based on whether a client resource tag matches a server resource tag. *Draper* notes that synchronization may include "clash" detection, but merely makes reference to a copending application, without providing any further details. Col. 11, ll. 51-58.

"To establish a *prima facie* case of obviousness . . . the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP § 2143. "During patent examination, the pending claims must be 'given their broadest reasonable interpretation consistent with the specification.'" MPEP § 2111. "The broadest reasonable interpretation must also be consistent with the interpretation that those skilled in the art would reach." *Id.* "A prior

art reference that 'teaches away' from the claimed invention is a significant factor to be considered in determining obviousness." MPEP 2145(X)(D)(1).

In rejecting claim 1, the Office Action asserts that *Souder* discloses determining that a conflict exists between the server copy of a resource and the client copy of the resource. Office Action, p. 5 (rejection of claim 1). The Office Action acknowledges that *Souder* fails to disclose whether a server resource tag that is representative of a server copy of a resource matches a client resource tag that is representative of a client copy of the resource, but asserts that *Draper* discloses the language at issue. *Id.* Applicants respectfully submit that the Office Action's logic is flawed because the Office Action essentially rewrites Applicants' claim in making the rejection, and therefore fails to interpret the claim properly.

With respect to claim 1, the limitation at issue reads "determining that a conflict exists between the server copy of the resource and the client copy of the resource if a server resource tag that is representative of the server copy of the resource does not match a client resource tag that is representative of the client copy of the resource." Each of the other independent claims recites a similar limitation. In its rejection, the Office Action divides the claim into two separate and unrelated parts: (i) determining that a conflict exists between the server copy of the resource and the client copy of the resource, and (ii) if a server resource tag that is representative of the server copy of the resource does not match a client resource tag that is representative of the client copy of the resource. In doing so, the Office Action separates the action from the criteria, and therefore gives the claim an interpretation that is unreasonably broad. The claim recites an action, determining that a conflict exists, that is based on specific criteria, a server resource tag that does not match a client resource tag. In other words, one characteristic of claim 1 is that when a server resource tag does not match a client resource tag, a resource conflict exists. Even assuming for the sake of argument the Office Action's assertion that *Draper* discloses the criteria (i.e., the resource tags do not match), *Souder* combined with *Draper* does not meet the recited limitation because there is no teaching, suggestion, or motivation in either reference that a resource conflict exists when a server resource tag does not match a client resource tag. In contrast, the unreasonably broad interpretation given by the Office Action is: (i) a resource conflict exists, and (ii) a server resource tag does not match a client resource tag—with no relationship between them. Accordingly, Applicants respectfully submit that the rejection of

independent claim 1, and independent claims 10, 40, and 42, is improper and should be withdrawn.

Furthermore, in supporting the rejection based on this unreasonably broad interpretation, the Office Action asserts that column 5, lines 19-36, and column 9, line 60, through column 10, line 21 of *Draper*, disclose "if a server resource tag that is representative of the server copy of the resource does not match a client resource tag that is representative of the client copy of the resource." Office Action, p. 5 (rejection of claim 1). However, rather than teaching that a resource conflict exists when a server resource tag does not match a client resource tag, column 5, lines 19-36 teach that *Draper's* tags may be used to determine which copy of a data item is more recent so that the most recent data can be propagated during synchronization. This cited passage is clearly contrary to Applicants' invention, which instead of using tags to identify the most recent data to be propagated during synchronization, uses tags to identify conflicts between a client copy of a resource and a server copy of a resource. (The other cited passage, column 9, line 60, through column 10, line 21, discloses using tags to avoid having to send a list of all cached objects to a master in order to determine which objects are out of date, but makes no mention of conflict detection or resolution.) Accordingly Applicants respectfully submit that, if anything, these passages of *Draper* teach away from Applicants claimed invention, and therefore support a conclusion that Applicants' invention is not obvious, rather than supporting the conclusion asserted in the Office Action.

Given broadest reasonable interpretation of claim 1 (and the other pending independent claims), Applicants respectfully submit that among other things, *Souder* and *Draper* fail to teach, suggest, or motivate determining that a conflict exists between the server copy of the resource and the client copy of the resource if a server resource tag that is representative of the server copy of the resource does not match a client resource tag that is representative of the client copy of the resource. Rather, *Souder* teaches determining that a conflict exists by using the modification information itself—comparing old and new values from one site with old and current values from another site. And *Draper* teaches that tags may be used to determine which copy of a data item is more recent so that the most recent data can be propagated during synchronization, as opposed to determining that a conflict exists if server and client tags do not match. Because the cited art fails to teach or suggest all the claim limitations, the Office Action fails to establish a *prima facie* case of obviousness, and therefore the rejections of the

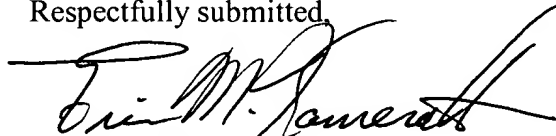
independent claims, as well as the corresponding dependent claims, under 35 U.S.C. § 103(a) as being unpatentable over *Souder* in view of *Draper* are improper and should be withdrawn.

Finally, in rejecting claim 10, the Office Action asserts that the abstract and column 5, lines 5-8 of *Souder* disclose determining that a conflict exists if a client resource tag does not match the server resource tag. In addition to contradicting the rejection of claim 1, Applicants respectfully submit that this assertion is simply incorrect. Neither the abstract nor column 5, lines 5-8, of *Souder* make any reference to resource tags whatsoever. Accordingly, the rejection of independent claim 10 (and independent claim 42 which simply refers to the rejection of claim 10) is improper, and should be withdrawn.

Based on at least the foregoing reasons, Applicants respectfully submit that the cited prior art fails to anticipate or make obvious Applicants invention, as claimed for example, in independent claims 1, 10, 40, and 42. Applicants note for the record that the remarks above render the remaining rejections of record for the independent and dependent claims moot, and thus addressing individual rejections or assertions with respect to the teachings of the cited art is unnecessary at the present time, but may be undertaken in the future if necessary or desirable, and Applicants reserve the right to do so. Accordingly, Applicants respectfully submit that the pending claims, 1, 5-10, 12-14, 16, 18-21, 24, 25, 27-29, 31-34 and 36-43, are in condition for allowance. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

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Respectfully submitted,



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